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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 12

Application Number: 09/607,801
Filing Date: June 30, 2000
Appellant(s): RAGHUNATH, MANDAYAM T.

Steven Fischman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 14, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1, 3, 7-8 and 10-20 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,477,508	Will	12-1995
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(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

10.1 Claims 1, 3, 7, 10-14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Will (US 5,477,508).

As per claim 1, Will discloses a method for dynamically controlling speed of a scroll device providing scroll functions for setting time of a time keeping display having minute and hour indicators, said scroll device generating scroll signals representing scroll events and communicating said signals to a control device for advancing said minute and hour indicators in response thereto, said method comprising:

a) receiving first scroll signals from said scroll device and, in response to received first scroll signals, incrementally advancing a time keeping display minute indicator in a first direction according to fine-grain time increments, and simultaneously tracking the advancing direction (Figure 8 the left part of curve 52);

b) counting said fine-grain time increments in said first direction (Figure 8 where the horizontal axis shows the Rate of Thumbwheel Movement is monitored); and,

c) thereafter, in response to continued receipt of first scroll signals, seamlessly advancing said time keeping display minute indicator according to coarse-grain time increments in said first direction when a count of said fine-grain time increments exceeds a predetermined number, said coarse-grain time increments greater than said fine-grain time increments, whereby fewer scroll device manipulations are required to

achieve a desired time set without notice to the user (Figure 8 the right part of curve 52 shows coarse increment compared to left part of 52 which has finer increment).

10.2 As per claim 3, Will demonstrated all the elements as applied to the rejected independent claim 1, supra, and further discloses generated scroll signals corresponding to said scroll events, wherein said fine-grain time increments of said display minute indicator corresponds to (1) minute increment per scroll event ("01, 02, 03 if the direction is down, 59, 58, 57 if the direction is up", column 9, line 50-51).

10.3 As per claim 7, Will demonstrated all the elements as applied to the rejected independent claim 1, supra, and further discloses the step of implementing said scroll device for incrementing advancing a time keeping display hour indicator in a first direction according to received first scroll signals, and simultaneously tracking said advancing direction (Figure 11b where there are settings for hour and minute).

10.4 As per claim 10, Will discloses a system for dynamically controlling scrolling functions, for a display indicator capable of navigating through a high-resolution display provided in a wearable appliance that displays textual or graphical content, said system comprising:

- a scroll device for manipulation by a user to provide said scrolling functions for advancing said indicator, said scroll device generating scroll events (Figure 3a 25); and,

- a control device for receiving said scroll events, tracking an advancing direction of said indicator by counting received scroll events, and providing dynamic speed control of said indicator by advancing said indicator according to fine-grain and coarse-grain increments in response to said scroll events and said tracked direction,

wherein said dynamic speed control is seamless to the user (Figure 3a 20 where frequencies were used to “update software counters kept in random access memory 21 (RAM) that control all timing functions”, column 6, line 27-29 and Figure 8).

10.5 As per claim 11, Will demonstrated all the elements as applied to the rejected independent claim 10, supra, and further discloses said control device comprises a mechanism for determining a predetermined number of said fine-grain increments (Figure 8), whereby upon continued manipulation of said scroll device, after determination of a predetermined number of said fine-grain increments, said control device enabling coarse-grain advancement of said display indicator per scroll event in said first direction to thereby advance to a desired display position with fewer scroll device manipulations (Figure 8 right side of curve 52 is coarse grain increment).

10.6 As per claim 12, Will demonstrated all the elements as applied to the rejected dependent claim 11, supra, and further discloses said appliance provides time keeping functions, said indicator including a time keeping display minute and hour indicators for a time keeping function (Figure 11a), whereby, said control device enables incremental fine-grain advancement of said time keeping display minute indicator per scroll event in a first direction, and, upon continued manipulation of said scroll device, after determination of a predetermined number of said fine-grain increments, enables coarse-grain advancement of said time keeping display minute indicator per scroll event in said first direction to thereby achieve a desired time set with fewer scroll device manipulations (Figure 8 right side of curve 52 has coarse grain increment).

10.7 As per claim 13, Will demonstrated all the elements as applied to the rejected dependent claim 11, supra, and further discloses determination of user manipulation of said scroll device to effect a change in advancing direction of said indicator, said control device enables incremental fine-grain advancement of said indicator per scroll event in said changed direction ("Movement of the thumbwheel up or down results in change of the displayed value (of 96 here) in an appropriate natural direction (01, 02, 03 if the direction is down, 59, 58, 57 if the direction is up)", column 9, line 48-51).

10.8 As per claim 14, Will demonstrated all the elements as applied to the rejected dependent claim 11, supra, and further discloses said scroll device is a roller wheel (Figure 1 3).

10.9 As per claim 16, Will discloses a program storage device readable by a machine (Figure 3a 22), tangibly embodying a program of instructions executable by the machine to perform method steps for dynamically controlling scrolling functions for a display indicator capable of navigating through a display provided in a wearable appliance that displays textual or graphical content, said appliance implementing a scroll device for generating scroll events in response to user manipulation thereof, said method steps including the steps of:

- a) receiving scroll events for incrementally advancing said indicator per scroll event in a first direction to provide fine-grain scroll indicator movement, and simultaneously tracking the advancing direction (Figure 8 the left portion of curve 52);

- b) counting said fine-grain indicator increments in said first direction (Figure 8 where the horizontal axis shows the Rate of Thumbwheel Movement is monitored); and,

c) thereafter, in response to continued receipt of scroll events, providing in a manner that is seamless to a user, coarse grain scroll indicator movement by advancing said indicator for a pre-determined number of increments per scroll event in said first direction when a count of said fine-grain indicator increments exceeds a predetermined number, said coarse-grain scroll indicator movement greater than said fine-grain scroll indicator movement, whereby fewer scroll device manipulations are required to achieve a desired scroll indicator position on said display (Figure 8 the right portion of curve 52).

10.11 As per claim 17, demonstrated all the elements as applied to the rejected independent claim 16, supra, and further discloses:

d) receiving second scroll events in response to manipulating said scroll device to change direction of said indicator movement ("Movement of the thumbwheel up or down results in change of the displayed value", column 9, line 48-50);

e) determining said change in direction ("Movement of the thumbwheel up or down results in change of the displayed value", column 9, line 48-50, the changes are inherently determined because the direction of the movement is changed); and,

f) incrementally advancing said indicator per received scroll event in said changed direction to provide fine-grain scroll indicator movement ("01, 02, 03 if the direction is down, 59, 58, 57 if the direction is up", column 9, line 50-51).

10.12 As per claim 18, Will demonstrated all the elements as applied to the rejected dependent claim 17, supra, and further discloses wherein said appliance provides time keeping functions, said indicator including a time keeping display minute and hour indicators for a time keeping function (Figure 2).

10.13 As per claim 19, Will discloses a method for dynamically controlling scrolling functions for a display indicator capable of navigating through a display provided in a wearable appliance that displays textual or graphical content, said appliance implementing a scroll device for generating scroll events in response to user manipulation thereof, said method comprising the steps of:

a) receiving scroll events for incrementally advancing said indicator per scroll event in a first direction to provide fine grain scroll indicator movement, and simultaneously tracking the advancing direction (Figure 8 the left portion of curve 52);

b) counting said fine-grain indicator increments in said first direction (Figure 8 where the horizontal axis shows the Rate of Thumbwheel Movement is monitored); and,

c) thereafter, in response to continued receipt of scroll events, providing in a manner that is seamless to a user, coarse grain scroll indicator movement by advancing said indicator for a pre-determined number of increments per scroll event in said first direction when a count of said fine-grain indicator increments exceeds a predetermined number, said coarse-grain scroll indicator movement greater than said fine-grain scroll indicator movement, whereby fewer scroll device manipulations are required to achieve a desired scroll indicator position on said display (Figure 8 the right portion of curve 52).

10.14 As per claim 20, Will demonstrated all the elements as applied to the rejected independent claim 1, *supra*, and further discloses:

d) receiving second scroll events in response to manipulating said scroll device to change direction of said indicator movement ("Movement of the thumbwheel up or down results in change of the displayed value", column 9, line 48-50);

e) determining said change in direction ("Movement of the thumbwheel up or down results in change of the displayed value", column 9, line 48-50, the changes are inherently determined because the direction of the movement is changed); and,

f) incrementally advancing said indicator per received scroll event in said changed direction to provide fine-grain scroll indicator movement ("01, 02, 03 if the direction is down, 59, 58, 57 if the direction is up", column 9, line 50-51).

10.15 Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Will (US 5,477,508).

As per claim 8, Will demonstrated all the elements as applied to the rejected dependent claim 7, *supra*.

Will teaches dynamically controlling speed of a scroll device, it is noted that Will does not teaches the steps of "receiving second scroll signals in response to manipulating said scroll device to change direction of said time keeping display hour indicator; determining said change in direction; and, incrementally advancing said time keeping display hour indicator in said changed direction according to fine-grain time increments, and simultaneously tracking said advancing direction", however, since Will has already teaches the scrolling in minute increment, it would have been obvious to one skilled in the art at the time the invention was made to extend the same mechanism to the hour increment in order to make the controlling more versatile.

10.16 As per claim 15, Will demonstrated all the elements as applied to the rejected dependent claim 11, supra.

Will discloses a system for dynamically controlling a scrolling device, it is noted that Will does not explicitly disclose using the mouse wheel as a scrolling device, however, since the mouse wheel is notoriously well in the art for scrolling, it would have been obvious for one skilled in the art at the time the invention was made to include it in order to increase the maneuvering options.

(11) Response to Argument

Applicant alleges that Will teaches determining a “rate of movement” which is not the same as counting scroll signals generated from the scroll wheel. In reply, the Examiner notes that by monitoring the rate of thumbwheel movement, Will shows monitoring of the scroll signals per amount of time. Although Will does not teach exactly the same limitations as claimed, however, since the claim language uses “comprising” in the claim, the claim is open ended. Applicant claims “counting ... scroll signal” and Will teaches monitoring “rate of thumbwheel movement”. In Will’s teaching, Will teaches (in reference to Figure 3a) “a thumbwheel 25 or rotating cylinder operated by the user’s thumb or finger is moved by the user when desired, and as it is moved an encoder 26 generates pulses that are transmitted to the microprocessor 20. The encoder converts rotation of the thumbwheel, which is connected to a shaft, to pulses that encode angular movement”, column 6, line 34-39. Thus, Will’s monitoring mechanism is counting amount of pulses generated due to turning of the thumbwheel. The pulses can be interpreted as scrolling signals. Since monitoring thumbwheel movement involves

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monitoring the distance of the thumbwheel moved or, in this instance, the amount of scroll signals generated per amount of time, Will teaches the claimed limitations plus more.

For the above reasons, it is believed that the rejections should be sustained.

(12) *Inquiries*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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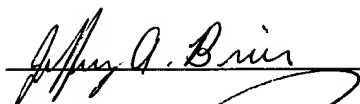
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Respectfully submitted,

Ryan Yang
September 16, 2003

Conferees:

Jeffery A. Brier

Handwritten signature of Jeffery A. Brier in cursive script, written over a horizontal line.

Michael Razavi

Handwritten signature of Michael Razavi in cursive script, written over a horizontal line.